

RICHARD N. COLLINS, P.E.
Project Manager

Mr. Collins has more than 19 years of experience in the civil/structural engineering design of many types of structures and foundations, the majority of which has focused on transmission line engineering design. He has extensive experience related to the upgrade and reconductoring of existing wood pole transmission lines ranging from 34 kV to 138 kV. Mr. Collins' responsibilities include the supervision of staff comprising engineers, designers, and CADD operators, along with design, calculations, construction drawings and specifications for transmission line structures and their foundations.

Professional Background:

1991-Present Commonwealth Associates, Inc., Jackson, Michigan
1984-1991 SSOE Inc., Flint, Michigan

Representative Project Experience:

- Foundation Design Engineer for a 230/115 kV overhead line project for AES Corporation. Most of the drilled pier foundations were set in rock. Blasting with dynamite created a need for continuous coordination with the contractor during construction.
- Project Engineer for Bangor Hydro-Electric Company's Second 345 kV Tie Line to New Brunswick. The line will be supported on predominantly wood H-frame structures and steel lattice angle structures. Duties include assisting with final engineering, material procurement, and construction management activities.
- Project Manager for a 13-mile 230 kV transmission line turnkey project in California. The project used double-circuit steel poles and bundled 2156 kcmil "Bluebird" conductor to connect an existing substation with an IPP power plant.
- Project Manager for a 5-mile 230 kV transmission line in New Jersey for Conectiv. The line used bundled 2493 kcmil ACAR conductors supported by steel poles on caisson foundations.
- Project Manager for the routing, design, and material procurement for a 7-mile 115 kV line for Rochester Gas and Electric Corporation. The project involved building over existing 34.5 kV and 12 kV lines through an existing congested urban and industrial corridor. The line was supported on a combination of wood poles (self-supporting and guyed), steel poles and lattice towers and crossed one major highway, the Erie Canal, and several railroads. It was also necessary to reroute two 1/4-mile sections of a 115 kV line through existing substations using steel poles. Over 50 percent of the steel pole foundations had to be designed for installation into bedrock. This project also included two short segments of 115 kV solid dielectric underground cable.

RICHARD N. COLLINS (CONTINUED)

- Project Engineer for a 4-mile triple-circuit line connecting Indeck Energy Services, Inc.'s new combined-cycle power plant to an existing substation. The line consisted of one 345 kV circuit over two 138 kV circuits on a single-steel-pole structure.
- Prepared Engineer-Procure-Construct (EPC) transmission line specifications and cost estimates for 500 kV lines in South America for New England Global Transmission Company. Also developed preliminary design and cost estimates for comparing a 500 kV ac versus a ± 450 kV dc line in Australia.
- Conducted a field inspection and prepared a report detailing different repair alternatives for two severely deteriorated concrete foundations built in the 1930s to support lattice towers at the base of a hydro dam on the Connecticut River in New Hampshire for New England Power Service Company.
- Project Engineer for the design of self-supporting steel and glu-lam poles for Seattle City Light. The Port Authority was undergoing a major redesign of two of its terminals and the distribution system had to be rebuilt to accommodate the new infrastructure.

Education:

B.S., Civil Engineering, University of Michigan, 1984

Registration:

Professional Engineer in Michigan, 1989; Alabama, 2002; Illinois, 2002; New York, 2002; Oklahoma, 2003; Texas, 2003; Virginia, 2003; Tennessee, 2003; Maine, 2004; Professional Civil Engineer in California, 1999

Societies:

National Society of Professional Engineers; American Society of Civil Engineers; IEEE, Power Engineering Society

Publications:

"Interfacing with Structure Modules," presented at the PLS-CADD Users Group Meeting, Jackson, Michigan, October 1998.

"Bridge Optimization Using WIRELDS and MINDES for the Marketplace-Mead-Westwing 500 kV Transmission Line Lattice Tower Design," presented at the Electrical Power Research Institute Midwest Users Group Meeting, Jackson, Michigan, July 1992.